



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/072,039	02/05/2002	Oliver Schreck	P02,0018	3794

26574 7590 05/19/2006

SCHIFF HARDIN, LLP  
PATENT DEPARTMENT  
6600 SEARS TOWER  
CHICAGO, IL 60606-6473

EXAMINER
----------

ROY, BAISAKHI

ART UNIT	PAPER NUMBER
----------	--------------

3737

DATE MAILED: 05/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/072,039	SCHRECK, OLIVER	
	<b>Examiner</b>	<b>Art Unit</b>	
	Baisakhi Roy	3737	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 21 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments, with respect to the rejection(s) of claim(s) 1-15 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of newly found prior art.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-15 are rejected under 35 U.S.C. 102(e) as being anticipated by deCharms (2002/0103428). deCharms discloses a method and apparatus for functional MRI including obtaining and storing a plurality of images with and without stimulation together with information indicating whether the image was registered with or without stimulation where the subject is at rest or under stimulation ([0075] [0149]) and with at least one image related stimulation value such as the type of stimulation and information describing a point in time of said stimulation ([0015] [0106] [0108] [0112] [0180]). deCharms further teaches determining an "image-related correlation values" or

Art Unit: 3737

images wherein points of highest intensity correspond to points of highest correlation or coincidence to better differentiate between activated and non-activated brain regions ([0075] [0099-0100] [0144] . deCharms teaches storing the imaging parameters different from the image data are with the image data ([0106] [0108] [0112] [0180 lines 25-35]). deCharms also teaches the use of an optical stimulation, acoustic stimulus or pressure stimulus ([0148]).

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jesmanowicz et al. in view of deCharms (2002/0103428). Regarding claims 1, 2, 4-6, 7, 14, and 15, Jesmanowicz et al. disclose a method and apparatus for functional MRI including obtaining and storing a plurality of images with and without stimulation together with information indicating whether the image was registered with or without stimulation and with at least one image related stimulation value such as the type of stimulation and information describing a point in time of said stimulation (col. 2 lines 41-67, col. 10 lines 45-60). Jesmanowicz et al. further teach determining an "image-related correlation values" or images wherein points of highest intensity correspond to points of highest correlation or coincidence to better differentiate between activated and non-activated brain regions (col. 3 lines 6-18, col. 6 lines 23-38 and claim 1). The reference

Art Unit: 3737

further teaches filtering out some images that should be ignored during the evaluation (col. 3 lines 51-66). In reference to the storage of each image with information independent of the picture elements or the storage of parameters with the image, Jesmanowicz et al. do not explicitly teach storing of image data with information different from the image and a pressure and acoustic stimulus. In the same field of endeavor, deCharms discloses a MR method where imaging parameters different from the image data are stored with the image data ([0106] [0108] [0112] [0180 lines 25-35]). deCharms also teaches the use of an acoustic stimulus or pressure stimulus ([0148]). It would have therefore been obvious to one of ordinary skill in the art to use the teaching by deCharms to modify the teaching by Jesmanowicz et al. for the purpose of providing all relevant information together with the image data and therefore enabling a repeated evaluation at a later point in time.

Regarding claims 3, 9, 12, and 13, Jesmanowicz et al. further teach triggering a neural activity by a stimulus or sensory stimulator which could be in the form of optical stimulation and a stimulation source to measure the pulse intensity of an electrical pulse (col. 10 lines 45-60).

Regarding claim 8, Jesmanowicz et al. teach obtaining information describing the intensity level of the applied stimulus (col. 2 lines 57-60).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Baisakhi Roy whose telephone number is 571-272-7139. The examiner can normally be reached on M-F (7:30 a.m. - 4p.m.).


Art Unit: 3737

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian L. Casler can be reached on 571-272-4956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BR

BR

  
BRIAN L. CASLER  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3700